

The Repetitive Coordinator *ka* in Japanese and *either* in English as Scope Indicators in Disjunction

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This study aims to investigate the clausal disjunction (**DJ**) in Japanese and English, and to propose a unified account for the theory of DJ. Since Larson (1985), it has been observed that the distribution of *either* is taken to mirror the scopal properties of DJ (Schwarz 1999). On the other hand, the *Repetitive Coordinator-ka* (**RC-ka**) in Japanese has been assumed to be optional and used for the purpose of emphasis (Kishimoto 2013). I argue that **RC-ka** functions as an overt indicator of the scopal properties of DJ, in parallel with *either* in English.

When *either* is adjacent to the coordinated nominals (1b), the interpretation is ambiguous between *Narrow/Wide Scope readings* (**NSR/WSR**), while the scope of DJ is explicitly marked as WSR when *either* is displaced (1a). NSR corresponds to base-generated nominal DJ, while WSR is derived from clausal DJ through deletion (Rooth & Partee 1982, Schwarz 1999).

- (1) a. Mary is **either** [looking for a maid] or [~~looking for a cook~~].
 b. Mary is looking for **either** [a maid] or [a cook].

Previous studies have concluded that sentences like (2a) cannot have *Clausal Connective readings* (WSR) in (2c) since the structure before deletion (2b) is not grammatical (Miyama 2014). When **RC-ka** is adjacent to the nominals (2a), they are assumed to be base-generated.

- (2) a. Taro-ga ringo ka mikan **ka-o** kat-ta b. *Taro-ga [ringo-o kat-ta] ka [mikan **ka-o** kat-ta]
 T.-nom apple DJ/orange **RC-ka**-acc buy-past Lit. ‘Taro bought either an apple or an orange.’
 c. [Taro-ga [ringo-o kat-ta]] ka [(Taro-ga) [mikan-o kat-ta]] (**ka** da)
 T.-nom apple-acc buy-past DJ T.-nom orange-acc buy-past (**RC-ka** cop)
 ‘Taro either bought an apple or (bought) an orange.’

Following Kuroda’s (1965) insight that DJ such as (2a/c) are interrelated, I argue that WSR sentences are always derived from clausal DJ, through Fukui & Sakai’s (2003) PF-reanalysis (3).

- (3) a. Narrow Syntax: [Taro_{NP} [_{VP} ringo kat-ta] ka [_{VP} mikan kat-ta]].
 →b. PF components: [Taro_{NP}-ga [[_{NP} ringo ~~kat-ta~~] ka [_{NP} mikan (**ka**)]]-o kat-ta.

After deletion of verbal elements in the first conjunct, the string adjacent morphological units *ringo ka mikan* are reanalyzed as a nominal PF constituent through Morphological Merger (Halle and Marantz 1993). The case assignment pattern in (3b) further supports the reanalysis account since case particles can only be assigned to nominal elements (Kuroda 1978 inter alia).

Furthermore, when **RC-ka** is stressed and immediately followed by deaccenting (**RC-KA**), DJ obligatorily obtains WSR (*exclusive-or*) interpretation. I propose that this is due to the underlying clausal DJ like (2c). The fact that **RC-KA** never occurs with the clause-final **RC-ka** (**Taro-wa ringo ka mikan KA-o kat-ta ka da*) further supports this argument. The prediction is borne out that TP-adverbs such as *kyoo/kinoo* ‘today/yesterday’ are licensed only when **RC-KA** is present (4b).

- (4) a. *Taro-wa [*kyoo* ringo ka *kinoo* mikan (**ka**)]-*dochiraka*-o kat-ta
 b. Taro-wa [*kyoo* ringo ka *kinoo* mikan **KA**]-o kat-ta
 T.-top today apple DJ yesterday orange **RC-KA**-acc buy-past

‘Taro either bought an apple today or an orange yesterday’ (*WSR, exclusive-or Only*)

Following Miyama’s (2014) observation that nominal DJ is always base-generated when *dochiraka* ‘which-ka’ is present, I propose that **RC-ka** functions in parallel with *either*, as in (5).

(5) Proposals:	Scope of DJ	English	Japanese
a. RC-ka & <i>either</i> overtly indicate the scope of DJ:	NSR/WSR	(<i>either</i>) A or B [adjacent]	A ka B (RC-ka) [adjacent]
b. The RC-KA construction corresponds to clausal DJ:	NSR	base-generated nominal DJ	base-generated nominal DJ (+ <i>dochiraka</i>)
	WSR	clausal DJ/displaced <i>either</i>	clausal DJ/displaced RC-ka/RC-KA

Furthermore, our proposals (5) enable us to take a fresh look at the puzzle of *Inverse Scope Readings* (**ISR**) in DJ (Watanabe 2000:12). Since Japanese is a *rigid scope language* (Hoji 2003, among others), it is difficult for *daremo* ‘everyone’ to scope over the subject *John ka Mary* in (6a). However, when **RC-ka** is stressed (**RC-KA** in 6b), ISR becomes available.

- (6) a. John ka Mary (ka)-ga daremo-o sonkeisitei-ru (^{ok}or > every, *every > or)
 b. John ka Mary **KA**-ga daremo-o sonkeisitei-ru (^{ok}or > every, ^{ok}every > or)
 J. DJ M. **RC-KA**-nom everyone-acc admire-pres

or>∀ ‘John or Mary admires everyone’ / ∀>*or* ‘For each person, John or Mary admires him/her’

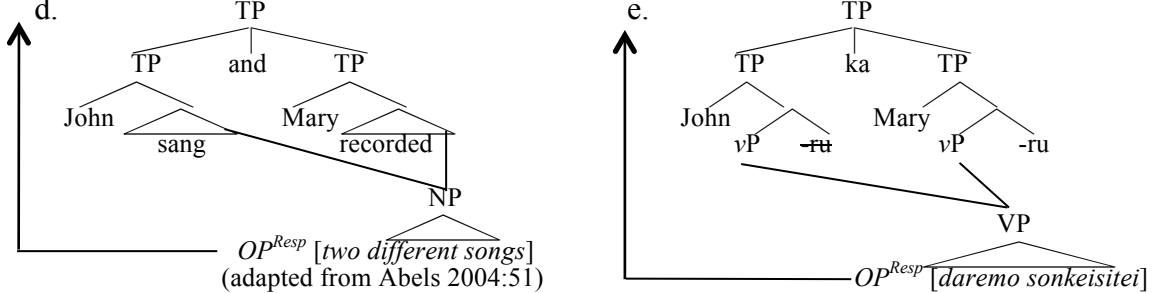
Showing that pragmatic accounts fail to explain (6b) (Ishihara 2000, Hayashishita 2013), I argue that ISR (∀>*or*) (6) is actually a consequence of *the Respectively readings*, as in (7) (Eggert 2000).

- (7) a. [Tolstoy and Dostoyevsky] wrote [*Anna Karenina* and *The Idiot*] (*respectively*).
 = b. Tolstoy wrote *Anna Karenina* and Dostoyevsky wrote *The Idiot*. (Gawron & Kehler 2004:169)

(5b) tells us that (6b) is derived from (8a) (*or*>∀), which is problematic. The similar configurations are independently observed by Abels (2004), in which he claims that (8b) is not derived from (8c) since the interpretations are completely different. Rather, the shared constituent *two different songs* is multiply dominated by both *sang* and *recorded*, as in (8d).

- (8) a. [John-ga [*daremo-o sonkeisitei-ru*]] ka [Mary-ga [*daremo-o sonkeisitei-ru*]] (**ka da**)
 J.-nom everyone-acc admire-pres DJ M.-nom everyone-acc admire-pres (**RC-ka cop**)
 ‘Either John admires everyone or Mary admires everyone.’ (^{ok}or>∀, *∀>*or*)

- b. John sang, and Mary recorded, *two different songs*.
 c. John sang [*two different songs*], and Mary recorded [*two different songs*].



Taking the basic assumption that *universal quantifiers* denote every individual in a relevant set (Sauerland 2003), I argue that *daremo* ‘everyone’ consists of subsets, say {*subset*₁, *subset*₂}, either of which is admired by *John* or by *Mary* (*OP*^{Resp} distributes the *subsets* over the subjects). If this line of argument is on the right track, it is reasonable to assume that *OP*^{Resp} enables conjoined object nominals to be distributed over the subjects. This prediction is borne out (9b).

- (9) a. **Resp*: [John ka Mary (ka)](dochiraka)-ga (sorezore) [Taro, Hanako]-o paatii-ni sasot-ta
 b. (Kinoo) John ka (kyoo) Mary **KA**-ga (sorezore) [Taro, Hanako]-o paatii-ni sasot-ta
 Yesterday J. DJ today M. **RC-KA**-nom (respectively) T. & H.-acc party-to invite-past
^{ok}Group reading: ‘[J. invited T. and H. to the party] OR [M. invited T. and H. to the party]’
^{ok}Respective reading: ‘J. invited T. to the party yesterday and M. invited H. to the party today’
 OR ‘J. invited H. to the party yesterday and M. invited T. to the party today’

Gawron & Kehler’s semantic interpretation rules in (10) require the *Resp_f* give a one-to-one correspondence from individuals to properties (2002:2-3). This lends credence to (6), since the cardinality of individuals is *two* in clausal DJ (6b), but pragmatically *one* in nominal DJ (6a).

- (10) a. [[(8b)]] = *Resp_f*[sing(song₁) ⊔ record(song₂)](j ∨ m) = sing(song₁)(j) ⊔ record(song₂)(m)
 b. [[(6b)]] = *Resp_f*[admire(subset₁) ⊔ admire(subset₂)](j ∨ m) = admire(subset₁)(j) ⊔ admire(subset₂)(m)
 c. [[(9b)]] = *Resp_f*[admire(t) ⊔ admire(h)](j ∨ m) = admire(t)(j) ⊔ admire(h)(m) / admire(h)(j) ⊔ admire(t)(m)

I conclude that DJ such as (2a) are ambiguous between NSR/WSR (nominal/clausal), and that **RC-ka** functions as an overt scope indicator in parallel with *either* in English. The present work also contributes to the study of cross-serial dependencies in respective readings.

[Selected References] [1] Fukui, N., & Sakai, H. (2003). The visibility guideline for functional categories: Verb raising in Japanese and related issues. *Lingua*, 113(4), 321-375. [2] Gawron, J. M., & Kehler, A. (2004). The semantics of respective readings, conjunction, and filler-gap dependencies. *L&P*, 27(2), 169-207. [3] Larson, R. K. (1985). On the syntax of disjunction scope. *NLLT*, 3(2), 217-264.